



RESEARCH PAPER

The Mediating Role of Parental Behavior between Anxiety and Body focused Repetitive Behavior Disorder among Adolescents

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ABSTRACT

This study was conducted to find out the mediating role of Parental behavior between Anxiety and Body focused repetitive behavior disorders among adolescents. The sample size is comprised of 130 adolescents. The sample includes both male and female participants of higher educational institutions. The scales used for the current study are; The Trichotillomania Scale for Children/adolescents and Parental Bonding Instrument. The results of the study concluded that parental behavior mediates the relationship between anxiety and body focused repetitive behavior disorders. The findings of the study would be beneficial for those designing the therapeutic programs for the patients of anxiety and Body focused repetitive behavior disorders. The results of the study are also important to find out the different aspects of the psychological health of the critical age period of adolescents. The study contributes in the development of the treatment plans for psychologists, councilors and mental health professionals to deal with the mental health problems of the adolescents.

Keywords

Adolescents, Anxiety, Body Focused Repetitive Behavior Disorder, Mediation, Parental Behavior

Introduction

The Body Focused Repetitive Behavior disorders is the group of disorders that includes problematic, contemptuous and recurring repetitive behaviors that are concerted on the body along with the repetitive efforts to curtail or stop these activities and these disorders include trichotillomania, excoriation and nailbiting [American Psychological Association (APA, 2013)]. In DSM-V BFRBD are placed underneath the class of Obsessive Compulsive and related disorders irrespective of numerous trepidations about classifying these behaviors as (Stein et al., 2010). Body-focused repetitive behaviors disorders (BFRBD) are repeated actions that aim one or more than one body areas particularly nails, skin and hair (McGuire et al., 2012). Negative outcomes such as health and esthetical hitches and socio-emotional snags are allied with BFRBD (Ghanizadeh, 2011; Odlaug et al., 2010). In BFRBD an individual consistently squirms with his body that results in physical harm (Houghton et al., 2018; Morand-Beaulieu et al., 2016).

Anxiety

Anxiety is the type of mental disorder in which a person with anxiety suffers from stress and trepidation in reaction to particular things and situations, as well as bodily signs like perspiration or a racing heart. It's normal to have anxiety when handling everyday work-related concerns, taking an exam, getting ready for an interview, or making judgments in unusual or unusual circumstances. By directing our focus and ensuring our safety normal anxiety can occasionally assist us in identifying risky circumstances. Furthermore, when anxiety levels exceed standard limit, a person feels uncontrolled and begins to despair and obsess about banal events. Periodic episodes of extreme anxiety, worry, or stress that swiftly reach their peak [American Psychological Association (APA, 2020)].

Parental behavior

According to Sam (2013) Parental behavior is the process of infusing children with knowledge from birth and assisting in their survival or general wellness. Parenting is the process of raising children and ensuring their healthy physical and mental growth by feeding and focusing on them. In response to the child's requests, the parent nurtures the child with authority and via consistent, appropriate, sympathetic behavior (Kretchmar-Hendricks, 2017)

The relationship between BFRBD, Parental behavior and Anxiety

In the development of early ailments parenting plays a decisive role. Parenting has influential role in triggering various behavior problems in children as well as adolescents (Hart et al., 2003). Harsh discipline and low levels of sensitive parenting results in the of development behavior challenges (Miner & Clarke, 2008: Gardner et al., 2009). One of the most crucial and fundamental elements of parent-child interaction is parenting style, which has an effect on kids' emotional and behavioral growth. Numerous studies have shown that parenting practices and parent-child interactions have an effect on children's mental health. Research suggests that parental style and psychological wellness have direct and indirect effects on adolescents' mental health (Anjum & Kausar, 2009). Anxiety can be minimized among adolescents as a result of increased parental acceptance and children's autonomy and independence may improve children's feelings of mastery over the environment with the parental support and encouragement and consequently leading to anxiety reduction. Similarly lack of support by the parents negatively affect child's sentiments, destabilizes their emotion regulation, and as a result child may become more susceptible to mental health problems like anxiety and depression (Tiwari & Verma, 2015; Yeshashwork, 2010).

There are various dimensions of warmth and control that are specific to parental nurturing behaviors and these dimensions play a significant role in triggering anxiety and obsessive compulsive (including trichotillomania, nail biting, excoriation) disorders throughout the lifespan (Schleider & Weisz, 2017). Severe psychosocial deficits are associated with Obsessive compulsive disorder (OCD) mostly as an outcome of parental or family strain (Storch et al., 2009). According to the studies parents of OCD children are found to be more repudiating or snubbing and are over controlling than the parents of normal children (Mathieu et al., 2016; Przeworski et al., 2012; Turgeon et al., 2010).

High controlled behavior along with the repudiation and rejection are found to be prevailed in the history of adolescents having behavioral problems and these behavioral problems have intimations of instigating disorder. Lower levels of behavioral problems are associated with higher parental warmth and child vulnerability of behavioral problems appear to be the result of refutation or rejection by parents (Mathieu et al., 2020). Parental over protection and intemperance also leads towards different types of behavioral disorders including OCD (Turgeon et al., 2002 cited in Alonso et al., 2004).

Anxiety can intrude routine tasks, as well as in the management of daily chores along with the exaggeration of ordinary ricks. Children are anticipated to show signs of anxiety, and symptoms may start during childhood or adolescence and last throughout one's prime years. Additionally, it has been hypothesized that BFRBD may consist of dysfunctional emotion regulation mechanisms designed to reduce discomfort, which could cause negative emotional states like anxiety to precipitate or worsen BFRBD (Alexander et al., 2018). Henceforth, adulthood BFRBD are appeared to be associated with higher rate of comorbid depression, anxiety and OCD (Gupta et al., 2015; Houghton et al., 2018; Yalcin et al., 2015). Children and adolescents with existing anxiety disorders were examined for BRFBD by Selles et al. (2018). In comparison to healthy persons, patients with excoriation disorder report higher levels of anxiety. inspected BRFBD in children and adolescents who are already suffering from with anxiety disorders (Teng et al., 2004). The chief axis psychiatric disorder that is allied with excoriation is anxiety disorder (Hall et al., 2013; Roberts et al., 2016; Snorrason et al., 2010). The excoriation patients reported the higher level of anxiety before indulging in the skin picking (Tuker et al., 2011), similarly psycho emotional state of anxiety is accompanying the need to bite and even to consume fingernails (Pelc & Jaworek, 2003).

According to Yalsin et al. (2015) patients of excoriation disorder who were not receiving any kind of treatment were compared with health persons (having same socio demographic features) and results showed high anxiety scores in the patient group implying anxiety to be a major contributor in triggering the excoriation disorder (Prochwicz et al., 2016).

There are many similarities between the risk factors for child abuse and trichotillomania. When there is psychological stress within the family, such as a strained mother-child bond, hospitalizations, periods of separation, or developmental difficulties, trichotillomania most frequently starts in youngsters. The recent discovery of a direct relationship between childhood family conflict. The risk factors for trichotillomania are quite similar to the risk factors for child abuse. Trichotillomania most commonly begins in children during times of psychosocial stress within the family unit, such as a strained mother-child bond, hospitalizations, periods of separation, or developmental issues (Boughn & Holdom, 2003). Parallel variables, such as aggression between parents or siblings, disturbed parent-child interactions, a recent bereavement, or illness in the home, have been commonly reported as grounds for detecting child abuse. (Saraswat, 2005). According to Perris et al. (1980, cited in Chen et al., 2018), variety of psychopathologies, including anxiety, depression, substance misuse, and obsessive-compulsive disorder are appeared to be the result of low parenting care and excessive parental overprotection and control. obsessive beliefs and repetitive actions may be worsened by the structure of parent-child relationships in suspected people (Alonso et al., 2004).

Developmental issues such early attachment styles and parental attitudes, as well as their role in the emergence and maintenance of OCD-related dysfunctional beliefs and symptoms, have allegedly been underappreciated, claim Doron and Kyrios (2005). Repetitive behavioral thought processes including threat assessment, difficulties with overwhelming thoughts, and underestimating one's capacity to face frightening or threatening events have been connected to attachment concerns and poor parenting care (Doron et al., 2011). The physical and social surroundings can be used to foresee or predict a threat if certain traits are present, such as parental overcontrol, strongly expressed emotions, and overprotection. Poor parenting may be linked to maladaptive cognitive appraisals that are not only related to OCD, as opposed to rude or neglectful attitudes (Barreet et al., 2002).

According to numerous studies, when children experience main caregiver(parents) neglect, this is when obsessive compulsive disorder in children first manifests (Fricke et al., 2007; Mathews et al., 2008; Montgomery et al., 2006; Murphy et al., 2006). People with OCD (trichotillomania, nail biting, and excoriation disorder) have many attachment concerns than healthy people (Myhr et al., 2004). According to Zimmerman (2001), physical and sexual abuse throughout childhood predicted impairments and discomfort in emotional awareness and emotional expression in clinical samples (Turner & Paivio, 2002). These emotional insufficiencies and impairments have also been connected to childhood frameworks where there is a lack of a non-threatening role model for showing emotions; where children experience and perceive physical or emotional insecurity; and where emotional manifestations are discouraged (Carpenter et al., 2011).

Sample

The adolescents who made up the sample for this study included both educated males and females. A 130-person sample was chosen. The approach of purposive sampling was employed to choose the sample. Adolescents from clinically diagnosed population and adolescents from the general population made up the sample. The participants who achieved BFRBD scores larger than the cutoff scores (both male and female) were chosen as a sample for the study. The areas for sample assortment were Abbottabad, Mansehra, Haripur, Mardan, Swabi, Peshawar, Rawalpindi, Islamabad, Jhelum, Karachi.

Inclusion Criteria

The inclusion criteria for the selection of the participants were that the adolescents who fall between the age range of 13 to 19. Only those participants were selected as a sample who were educated and selection was made from both male and female. Those participants who get the score greater than the cutoff score of respective scales were included as the sample.

Exclusion Criteria

Those adolescents who are not educated and lies above and below the set age limit were excluded from the sample. Uneducated and below and above age limit (13 -19) were excluded from the sample. The participants who did not get the scores greater than the cutoff point of respective scales were excluded from selection as a sample for the current study.

Instruments

The Depression Anxiety Scale (DASS-21)

This scale is the ephemeral form of the indigenous Depression Anxiety Stress Scale. The central aim of the DASS is identify the distinct and distinguish features of emotional distress. This scale also measures the severity of the essential signs of depression, anxiety and stress. The response classes for the scales are from 0 to 3. The reliability of the scales for anxiety scale is 0.84, for the stress scale 0.90 and 0.94 for depression scale. The reliability scores of the scales in terms of Cronbach's alpha for the current study data is 0.65 and for depression scale it is 0.96 (Lovibond & Lovibond, 1995).

Skin Picking Scale Revised

The Skin Picking Scale-Revised; SPS-R is developed by Snorrosam et al. (2012). The eight-item scale has the reliability .83 and validity 0.86. This scale is five-point Likert scale having the response categories of 0 (None) to 4 (extremely). The validity and reliability of all the sub scales are in satisfactory range. The Cronbach alpha reliability for this current study data is 0.87. Exploratory and confirmatory factor analyses identified two factors for this scale, one factor measures impairment and the other factor measures severity of the symptom. There are four items for both the factors.

The Trichotillomania Scale for Children/adolescents

Tolin et al. (2008) has developed this scale which consist of 12 items. This scale has two version, one for children or adolescents and the other one is parent version. Response categories for three-point Likert scale are from 0 to 2. The reliability of Trichotillomania Scale for Children (TSC) is .82 and validity is .74 (Tolin et al., 2008). The reliability of the scale for the current study data is 0.98.

Nail Biting Scale

The nail biting scale is developed by Claes and Vandereycken (2007). This scale is the sub scale of a new self-reporting questionnaire: the Self-Injury Questionnaire -Treatment Related (SIQ-TR). The scale measures the taxonomic specifications of Self injurious behavior, and in addition it also measures the affective back ground and outcomes along with the functions of every single type of self injurious behavior distinctly. The response categories are from 0 (no urge) to 4 (constant urge) for this five-point Likert scale. The reliability of the nail biting scale is .77(Claes & Vandereycken, 2007) and the reliability of the scale for this current study data is 0.88.

Parental Bonding Instrument

The parental bonding scale is divided into two subscales, one is care scale that is comprised of 12 items and the other is over protection scale that is consist of 13 items. The twelve items of care scale permit the highest scores of 36 on a Likert scale of 0 to 3. The over protection scale having 13 items permits for an all-out score of 39 on a Likert scale of 0 to 3. The scales can be used both individually and in tandem as an attachment tool. If used collectively, they let the researchers to explore five different types of parental bonding: average, high care-low overprotection, low care-low overprotection, high care-high overprotection, and low care-high overprotection

are the four different types of overprotection. The care scale cutoff point is twenty-six and the cutoff point for overprotection is 12.5. The score less than 26 on low parenting scale is the insignia of low parenting and scores greater than 12.5 on care scale indicates parental low care (Perker et al.,1979; Gamsa,1987). In this current study the scores of nearly all the members were below 26 at care scale while the total score of these members were above 12.5 at overprotection scale. The Cronbach alpha for the over protection scale for this current study data is 0.79 and for low care scale is 0.88.

Results and Discussion

Table 1
The characteristics of Demographic variables of the sample with BFRBD

variables	N	Percent	Cum%
gender male	61	39.1	46.9
female	69	44.2	100.0
age 13-16	62	39.7	47.7
17-19	68	43.6	100
Family system nuclear	91	58.3	70
Joint	39	25.0	100
Education FA	55	35.3	42.3
BS	75	57.7	100.0
Area rural	46	29.5	100
urban	84	53.8	64.6
Siblings 2	23	14.7	17.7
3 or more	107	68.5	100.0
Sample clinical	59	36.6	17.7
Non clinical	71	63.4	100.0

Note. FA = Faculty of Arts, BA = Bachelor of Arts

Table 1 demonstrates the demographic characteristic of the sample of the current study. The males were 39.1%, females 44.2%, nuclear family 58.3%, joint 25.0%, faculty of arts 35.3%, bachelor of arts 57.7%, rural areas 29.5%, urban 64.6%, clinical sample 17.7 and non clinical sample 100.0%.

To see the psychometric properties and descriptive statistics of the scales of the study, the Cronbach's Alpha reliabilities, Mean, Standard Deviation, Range and Skewness were computed.

Table 2
Psychometric properties of the scales

Scales	N	SD	M	α	Range Actual	Kurt.	Skew
1.DASA	8	4.21	21.44	.65	19-24	2.00	1.01
2.PACT	12	4.31	10.14	.88	3-19	2.00	1.00
3.POPT	13	6.12	22.51	.79	11-33	-.18	-.46
4.TRI	12	8.95	6.43	.98	0-23	.428	-1.00
5.EXCOR	8	13.27	15.75	.87	1-40	1.00	.85
6.NB	7	12.07	10.80	.88	0-27	-1.	.300

Note. Dasa=Das Anxiety scale, Pact = Parents care scale, Pop t= Parents overprotection scale

Tri = Trichotillomania scale, Excor =Excoriation scale, Nb =Nail biting scale

Table 2 determines the psychometric properties and descriptive statistics for the scales of the study. Means and standard deviation were computed to show the average scores of participants on all study scales. Value of skewness indicates distribution of scores among variables. value of skewness on all the scales indicates that the distribution curve is slight tailed and pointed. The Alpha reliability of Anxiety scale is .65, Parent care scale is .88, Parent over protection scale is .88,

Trichotillomania scale is .98, Excoriation scale is .87 and Nail biting scale is .88. Absolute value for skewness is less than 2 (-3 to +3) that shows the normal distribution of data and parametric testing can be assessed (Brown,2006). Therefore, judgment was taken to go on for further analysis with normality achieved.

Table 3
Summary of Mediation Results for Anxiety as Independent Variable, Parental behavior as mediator and BFRBD as Dependent Variable(N=130)

DV	M	Effect of IV on M	Effect of M on DV	Direct effects	Indirect effect	Total effects
BFRBD	PB	.153 ***	.110***	.124*	.155	.140***

Note. DV = dependent variable (BFRBD); M = mediating variable (Parental behavior); IV = independent variable (Anxiety). a significant point estimate ($p < .05$).

*** $p < .001$.

In order to test mediating analysis, a bootstrapping technique with 1000 bootstrap resamples to test the secondary effect of anxiety through the potential mediating variables on BFRBD. Bootstrapping is a nonparametric technique that produces an estimation of the indirect effect, including a 95% confidence interval. When zero is not in the 95% confidence interval, it can conclude that the indirect effect is significantly different from zero at $p < .05$ (two-tailed) and, consequently, the effect of the Anxiety on the BFRBD is partially mediated by the proposed mediating variable parental Behavior.

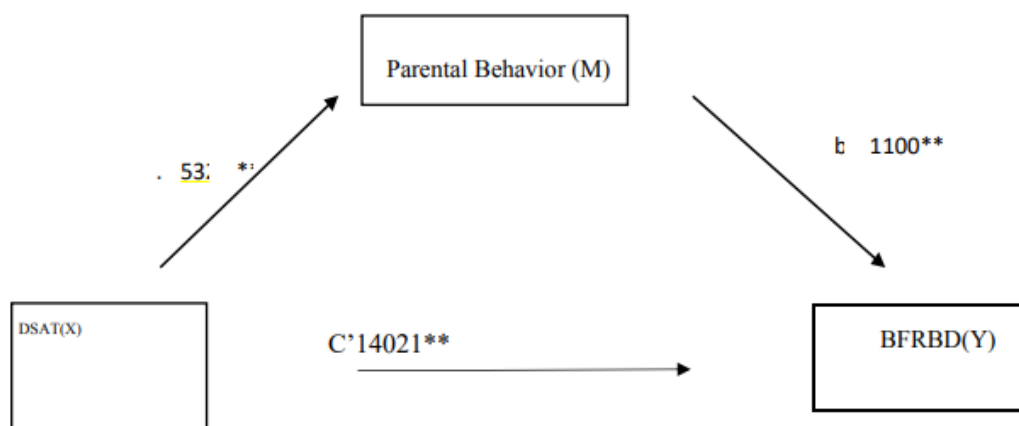


Figure 1. Mediation Analysis

Simple mediation generated the results that that Anxiety is indirectly related to BFRBD through its relationship with parental behavior. As can be seen in Figure 1, Anxiety stated association with parental behavior ($a = -.153$, $p = .001$) than higher correlation BFRBD ($b = .110$, $p = .001$). A 95% bias-corrected confidence interval based on 10,000 bootstrap samples revealed that the indirect result ($ab = .12475$) was totally beyond zero ($-.0053$ to $-.0565$). Furthermore, Anxiety testified change in BFRBD even after taking into account Anxiety in direct effect through parental behavior ($C' = .14021$, $p = .001$).

Discussion

The current study was instigated to find out the mediating role of parental behavior between anxiety and BFRBD. According to the current study parental behavior mediates the relationship between Anxiety and BFRBD among adolescents. Findings of the study reveals that parental behavior partially mediated the relationship between Anxiety and BFRBD (Table 3). The finding is incoherent with the early literature that anxiety is related with parental rejection and overprotection or control and parental behavior is associated with the mental health of the children. Parental low care and over control leads towards the variety of psychopathologies such as OCD, anxiety, depression (Zhang et al., 2021). The models of childhood anxiety mostly focused on the diverse extents of the parenting behaviors and the development of anxiety (Borschmann et al., 2019; Butterfield et al., 2020; Kretschmer, 2021; Spry et al., 2018; Taraban & Shaw, 2018; Wu et al., 2020; Zhang et al., 2021). Previous literature described the positive relationship between overprotected behavior of parents and occurrence of obsessive compulsive behaviors including trichotillomania, excoriation and nail biting in their children (Chen et al., 2018).

Yoshida et al. (2005) described that over protected parenting results in the development of obsessive compulsive behavior in children that might be executed in such behaviors as nail biting, excoriation or trichotillomania. There are higher levels of low care from the parents in the patients of obsessive- compulsive behaviors including BFRBD than healthy individuals and lower levels of emotional warmth from the parents is reported by the obsessive-compulsive patients (Cassilas et al., 2020; Guérin-Marion et al., 2018; Mohammadi et al., 2021; Reid et al., 2021). According to the study low parental care and over protection develops the anxiety that leads towards the development of BFRBD among adolescents.

Limitations and Suggestions

Although it was strived hard during the whole research process to minimize the expected short comings, still the current study is not invulnerable from some possible flaws and these flaws were taken as a prodigious opportunity to overcome new challenges and expand the corresponding knowledge. The main limitation is the generalization of the study results is the lesser sample size. Although the sample size was expected to be 230 but at the end the actual data that met the required criteria was only 130, and in order to generalize the study's findings, future research needs be based on a larger data set in order to impact policymakers. Because of the thorough research design used in this study, a purposive sample approach was implemented, and only adolescents who are enrolled in higher education institutions were contacted as potential participants, which is yet another study constriction. The findings may not apply to all Pakistani adolescent experiences because the study was inept to encompass adolescents who were less educated or untutored (which makes up a big portion of Pakistan's adolescent population).

Implications

This study is valued to many entities that are allied with counseling and therapeutic interventions programs. This study offers the foundation to present new and upgraded features of treatment. The study has discovered the concealed etiological aspect that influence the body focused repetitive behavior disorder, that is parental behavior in connection with anxiety. Additionally, it will aid on to improve orthodox treatment approaches to deal with common prevailing disorder (BFRBD) of adolescent period. This study contributes to arising BFRBD related research in Pakistan by providing a comprehensive picture of risk factors, impacts and co-occurring disorders as specified by adolescents. The results of the study also add to new knowledge regarding the importance of social perspectives to international research in this particular area.

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